

**AN ALTERNATOR EQUIPPED WITH IMPROVED INTERFACE MEANS  
BETWEEN AN ENGINE CONTROL APPARATUS AND ITS REGULATOR  
CIRCUIT, AND A CORRESPONDING INTERFACE**

**ABSTRACT OF THE DISCLOSURE**

- 5 A motor vehicle alternator includes a regulator for varying excitation as  
a function of a reference variable, together with a conversion circuit  
for varying the reference variable (such as a voltage) according to a  
PWM signal. It includes, in combination: an internal clock with a  
controlled variable period; a difference circuit which produces a  
10 difference signal between the period of the PWM signal and that of a  
signal from the clock; a control circuit which governs the internal  
clock in response to the difference signal in such a way as to equalise  
the periods of the internal clock signal and the PWM signal; and a  
conversion circuit which comprises a counter paced by the clock and  
15 active while the PWM signal is at a given logic level, together with a  
D/A converter for converting the count from the counter into a voltage  
from which the regulator reference voltage is obtained.